Title (en)

Solid oxide fuel cell and fuel cell system

Title (de)

Feststoffoxidbrennstoffzelle und Brennstoffzellensystem

Title (fr)

Pile à combustible à oxyde solide et système de piles à combustible

Publication

EP 2731185 A3 20140618 (EN)

Application

EP 13191802 A 20131106

Priority

JP 2012245706 A 20121107

Abstract (en)

[origin: EP2731185A2] The compact fuel cell which can efficiently perform heating and can be repeatedly used includes a solid electrolyte 3, an anode 4 that is formed on one surface of the solid electrolyte 3, a cathode 2 that is formed on another surface of the solid electrolyte 3, an anode fuel material 5, a heating portion 7 for heating and maintaining the solid electrolyte 3 and the anode fuel material 5 at a temperature equal to or higher than a predetermined level, and a sealing portion 16 that is installed in the solid electrolyte 3, forms a sealed space 13 sealing the anode 4 and the anode fuel material 5 together with the solid electrolyte 3 and the heating portion 7, and can repeatedly open and close, in which a helium leak rate of the sealed space 13 is maintained at 1 × 10 -2 Pa·m 3 /sec or a lower rate.

IPC 8 full level

H01M 8/24 (2006.01); **H01M 8/00** (2006.01); **H01M 8/02** (2006.01); **H01M 8/04** (2006.01); **H01M 8/12** (2006.01)

CPC (source: CN EP US)

H01M 8/004 (2013.01 - CN EP US); **H01M 8/006** (2013.01 - CN); **H01M 8/0271** (2013.01 - CN EP US); **H01M 8/0278** (2013.01 - CN EP US); **H01M 8/04007** (2013.01 - CN); **H01M 8/124** (2013.01 - EP US); **H01M 8/1246** (2013.01 - CN EP US); **H01M 8/1253** (2013.01 - EP US); **H01M 8/126** (2013.01 - EP US); **H01M 8/1266** (2013.01 - EP US); **H01M 8/2425** (2013.01 - CN); **H01M 8/243** (2013.01 - CN EP US); H01M 8/12 (2013.01 - EP US); H01M 2008/1293 (2013.01 - CN); Y02E 60/50 (2013.01 - EP US); Y02P 70/50 (2015.11 - EP US)

Citation (search report)

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- [Y] EP 1325774 A1 20030709 - NIPPON STEEL CORP [JP]
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CN110224167A

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 2731185 A2 20140514; **EP 2731185 A3 20140618**; **EP 2731185 B1 20170614**; CN 103811688 A 20140521; CN 103811688 B 20170912; ES 2634062 T3 20170926; JP 2014096223 A 20140522; JP 5210450 B1 20130612; US 2014127599 A1 20140508; US 9882226 B2 20180130

DOCDB simple family (application)

EP 13191802 A 20131106; CN 201310549157 A 20131107; ES 13191802 T 20131106; JP 2012245706 A 20121107; US 201314072300 A 20131105